

REVIEW OF THE MIDDLE AMERICAN LACE BUG GENUS *MACROTINGIS* (HETEROPTERA: TINGIDAE), WITH A KEY AND A NEW SPECIES FROM MEXICO¹

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ABSTRACT: The genus *Macrotingis* was described by Champion (1897:22) for two species. Later Drake added another species and a "variety" for one of Champion's species; that variety is herein elevated to full species status. The range of *Macrotingis*, previously known from Guatemala south into Panama, is extended a short distance northward into southern Mexico with the present description of the new species *M. schaffneri*. A key separates the five included taxa.

KEYWORDS: *Macrotingis*, Heteroptera, Tingidae, Middle America, Mexico.

Genus *Macrotingis* Champion Figure 1

Macrotingis Champion 1897:22. Type species: *Macrotingis biseriata* Champion, designated by Drake and Poor 1936:387.

Diagnosis. This genus of Tingidae is readily recognized by the combination of its first antennal segment being much longer than the width of the head across both eyes coupled with the presence of a small, elevated, and inflated cyst on the median carina extending from the anterior slope of the pronotum to the anterior margin of the collar.

List of *Macrotingis* species

Macrotingis biseriata Champion 1897:22. **REVISED STATUS**

Macrotingis biseriata Champion 1897:22. Costa Rica. Honduras. Panama.

Macrotingis biseriata biseriata.- Drake 1928:4.

Macrotingis novicis Drake, **NEW STATUS**

Macrotingis biseriata novicis Drake 1928:4. Honduras.

Macrotingis schaffneri, **NEW SPECIES**. Mexico.

Macrotingis uniseriata Champion 1897:22. Guatemala.

Macrotingis zeteki Drake 1950:299. Panama.

Key to species of *Macrotingis*

1. Pronotal disc with lateral carinae extending forward over interhumeral convexity to calli. Occipital spines obliquely elevated, very long, length of one of them greater than interocular width. Length 4.1 mm.....*M. zeteki* Drake

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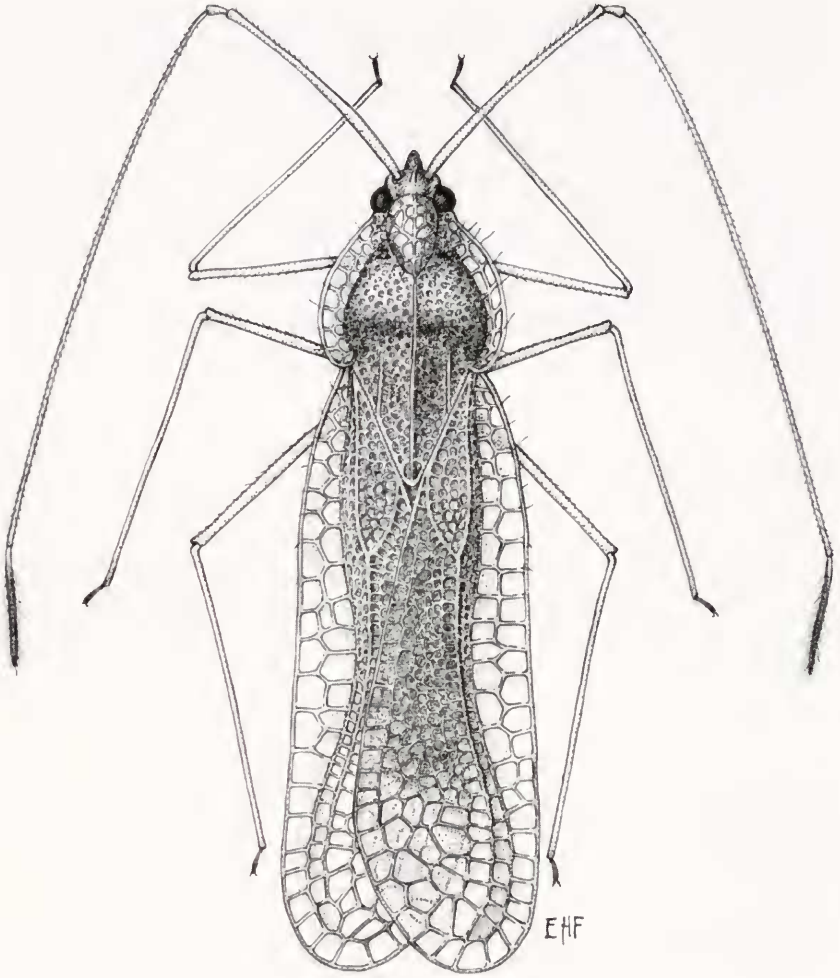


Fig. 1. *Macrotingis biseriata*, natural size 4.3 mm.

- Pronotal disc with lateral carinae, when present, restricted to area posterior to crest of interhumeral convexity. Occipital spines, when present, much shorter and decurved onto surface of head.....2
- 2. Lateral carinae of pronotal disc present posterior to interhumeral convexity3

- Lateral carinae of pronotal disc absent. Length 4.7 mm
*M. schaffneri*, **NEW SPECIES**
3. Costal area with a single row of areolae. Length 4.7 mm
*M. uniseriata* Champion
- Costal area with a partial to complete second row of areolae4
4. Costal area with two rows of areolae reaching base of costal area. Length
 4.2-4.3 mm*M. biseriata* Champion
- Costal area uniseriate basally. Length 4.6-4.9 mm*M. novicis* Drake

Macrotिंगis schaffneri, **NEW SPECIES**

Diagnosis. This species differs from all other members of the genus *Macrotिंगis* by lacking lateral carinae on pronotal disc.

Description. Male: Length 4.7 mm. Head with a single dorsal spine, the supraclypeal, which is very long, vertically recurved, its apex higher than crest of anterior pronotal cyst; dorsal surface convex, polished. Rostrum slightly passing midlength of mesosternum. Bucculae widened posteriorly, there slightly projecting under apex of prosternum; anteriorly projecting and meeting across clypeus.

Pronotum. Disc with numerous, close-set, distinct punctures; no discal lateral carinae; anterior cyst of median carina inflated, as high as median carina over interhumeral convexity, cyst slightly projecting above base of head, posteriorly terminated on anterior slope of interhumeral convexity, median carina elsewhere low, uniseriate. Paranotum slightly wider than an eye, weakly oblique, outer row of cells much larger than inner row.

Hemelytra. Elongate, costal margins almost parallel. Costal area uniseriate at base and at apical fourth, elsewhere with two very irregular rows of areolae. Discoidal area confined to basal third of hemelytron, with six areolae across widest part. Subcostal area regularly biseriata along slightly more than basal half of discoidal area, thence triseriate to well beyond discoidal area where it narrows to a uniseriate series. Hypocosta narrow, uniseriate.

Sternal laminae. Distinct; prosternal laminae straight, weakly converging posteriorly, separated by a space equal to space between anterior coxae; metasternal laminae strongly convexly curved, more widely separated than mesosternal laminae.

Peritreme. Not differentiated.

Abdomen. Impunctate.

Etymology. This species is dedicated to Dr. Joseph C. Schaffner, leader of the field parties that collected all except two specimens of the types series, including the holotype, and for his contributions to our knowledge of the Heteroptera through publications and field work.

Type specimens: **Holotype** ♂: Mexico, 2.1 mi. nw. Totolapan, July 11-17, 1981, Bogar, Schaffner, Friedlander. Deposited in Instituto de Biología, Universidad Nacional Autónoma de México, México, D. F. (UNAM). . **Paratypes:** MEXICO: 3 ♂, 7 ♀♀, Chiapas, 5 mi. north Nuevo Tenochtitlan, 3000', August 7, 1990, J. C. Schaffner (Texas A & M University, Collection Station [TAM]); 1 ♂, 1 ♀, Chiapas, 27 km. W. Cintalapa, August 30, 1991, R. W. Jones (TAM); 21 ♂♂, 19 ♀♀, same data as for holotype (TAM, UNAM, and [U.S.] National Museum of Natural History, Washington, DC [USNM]); 2 ♂♂. Oaxaca: 2.7 mi. nw. El Cameron, July 21-22, 1974, Clark, Murray, Ashe, Schaffner (TAM): 1.

Oaxaca, 27 mi. southwest Salina Cruz, July 14, 1987, Kovarik, Schaffner (TAM); 2 ♀, Oaxaca, 10 mi. e. Totolapan, Elev. 4,000 ft., July 20, 1987, Kovarik, Schaffner (TAM); 2 ♂♂, 1 ♀ Oaxaca, 12.4 mi. w. Tehuantepec, August 4, 1980, Schaffner, Weaver, Friedlander (TAM); 6 ♂♂, 1 ♀, Oaxaca, 2 mi. n. Totolapan, July 17, 1973, Mastro & Schaffner (TAM, USNM); 1 ♂ Oaxaca, 10 mi. E. Totolapan, 4000 ft., VII-20-1987, P. Kovarik, and J. Schaffner (TAM).

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LITERATURE CITED

- Champion, G. C.** 1897. Rhynchota, Tingitidae *In*, Godman and Salvin, *Biologia Centrali-Americana* 2:1-32.
- Drake, C. J.** 1928. Some Tingitidae (Heteroptera) from Honduras. *Occasional Papers Museum of Zoology, University of Michigan* 190:1-5.
- Drake, C. J.** 1950. A new tingid from the Canal Zone. *Proceedings of the Entomological Society of Washington* 52:299-300.
- Drake, C. J. and M. E. Poor.** 1936. The genera and genotypes of Tingitoidea of the Western Hemisphere. *Iowa State Journal of Science* 10:381-380.